

Amendments to the Claims

Listing of Claims:

Claims 1-6 (canceled).

Claim 7 (new). A method for compressing a working fluid in a combined cycle water/steam process in multi-stage turbo-compressors with inter-cooling in individual compression stages, the method which comprises:

forming a coolant of very finely atomized water by pressure-atomization of water to form microdroplets;

adding the coolant to the working fluid directly in at least one compression stage, wherein the coolant passes into a state of the working fluid during compression, thereby adding the coolant to the working fluid in a quantity serving to maintain a thermodynamic equilibrium;

evaporating the coolant along a saturation curve; and

adding the coolant between a compressor inlet and a compressor outlet to cause an increase in a working fluid mass flow.

Claim 8 (new). The method according to claim 7, which comprises obtaining the coolant from liquefied working fluid.

Claim 9 (new). The method according to claim 7, which comprises supplying the coolant to the working fluid before a first compression stage.

Claim 10 (new). The method according to claim 7, which comprises removing a heat of evaporation of the coolant from the compression system and thereby reducing an apparatus temperature and a medium temperature.

Claim 11 (new). The method according to claim 7, which rendering a mass flow of the working fluid in the turbo-compressor variable by controlled addition of the coolant to individual compression stages.

Claim 12 (new). The method according to claim 7, which comprises reducing a compression volume by internal cooling of the working fluid.